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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/210,213

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THOMAS F. LA PORTA

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LUCENT TECHNOLOGIES INC.

DOCKET ADMINISTRATOR

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HOLMDEL, NJ 07733

EXAMINER

DUONG, DUC T

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/210,213

Applicant(s)

LA PORTA ET AL.

Examiner

Duc T. Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9 and 12-21 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5, 6, 8, 9, and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumaki et al (U.S. Patent 6,473,411 B1) in view of Ahmed et al (U.S. Patent 6,160,804).

Regarding to claims 1, 13, and 20, Kumaki discloses a packet router MSR (Fig. 35 col. 11 lines 14-32) having a routing table adapted to maintain a plurality of routing table entries for a distributed packet-based subnet said destination node address, wherein a first address (home address) for delivery of a plurality of packets is assigned to a wireless device in said subnet, said first address utilized when said wireless device is attached to said packet-based network through a base station included within a first domain including a set of identified nodes, and wherein a home agent utilizes a second address (current location address when the mobile terminal move to a different subnet) for said wireless device when said wireless device is attached to the packet-based network through a base station excluded from said first domain (col. 12 lines 40-55), said packet router comprising means for receiving a path setup message over a first interface (col. 18 lines 24-27), said path setup message including a field defining a destination address (IP address), means, responsive to

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receiving said destination address, for generating a routing table entry corresponding packets arriving at said packet router and having said destination address as a packet header destination address to said first interface (col. 18 lines 27-35), means for receiving at least one packet having said destination address to as said packet header destination address (col. 49 lines 26-28), means for performing a lookup of said routing table entry having said destination address and as said packet header destination address from said plurality of routing table entries (col. 49 lines 28-31), and means, responsive to said lookup, for forwarding said at least one packet over said first interface (col. 49 lines 32-36), wherein a handoff update path setup message from a second wireless base station to said router is received if said wireless device is handed off from said router to said second wireless base station (col. 20 lines 48-62), said handoff update path setup message used to alter routing table entries for selected routers of said subnet (col. 21 lines 9-23), wherein said first address for said wireless device continues to be utilized if said second base station is within the same subnet (col. 22 lines 61-65).

Kumaki fails to teach for handoffs processed at a network layer.

However, Ahmend discloses a subnetwork layer D (Fig. 3B col. 11 lines 4-12) with mobility management module 28 for handoffs processed (Fig. 3B col. 11 lines 22-28).

Thus, it would have been obvious to one of skilled in the art to provided the subnetwork layer as taught by Ahmed in Kumaki's system layer for handoff processing. The motivation to do so would have been to perform packet routing and forwarding

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functions associated with the system, such as source routing, connectionless routing, or tunneling.

Regarding to claims 2 and 14, Kumaki discloses destination device node 170 (mobile unit) is wireless device (Fig. 5 col. 10 lines 25-27).

Regarding to claims 3 and 15, Kumaki discloses first router MSR is incorporated within a first wireless base station (Fig. 5 col. 10 lines 8 29-34).

Regarding to claim 5, Kumaki discloses plurality of subnet routers include at least said first wireless base station 202 and said second wireless base station 203 (Fig. 12 col. 22 lines 66-67).

Regarding to claim 6, Kumaki discloses handoff update path setup is initiated from said wireless device (col. 22 lines 21-29).

Regarding to claim 8, Kumaki discloses the wireless device is a CDMA device (col. 10 lines 39-45).

Regarding to claims 9 and 16, Kumaki discloses the packet-based subnet is an Internet Protocol subnet (col. 10 lines 12-15).

Regarding to claim 12, Kumaki discloses maintaining said first routing table entry as a soft state in said first router, said first routing table entry overwritten with a default entry if a refresh path setup message is not received at said router within a specified period of time (col. 25 lines 66-67 and col. 26 lines 1-6).

Regarding to claim 17, Kumaki discloses the path setup message is a power up path setup message (col. 17 lines 5-15).

Regarding to claim 18, Kumaki discloses the path setup message is a handoff path setup message (col. 20 lines 48-53).

Regarding to claim 19, Kumaki discloses the path setup message is a refresh path setup message (col. 26 lines 21-30).

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumaki and Ahmed, further in view of Umeda et al (U.S. Patent 5,929,817).

Regarding to claim 7, Kumaki and Ahmed discloses all the limitation with respect to claim 3, except for the wireless device is able to simultaneously tune to, and receive packets from, greater than one base station.

However, Umeda discloses a mobile communication system, wherein a mobile station 3 capable of simultaneously receiving packets from more than one base stations (Fig. 2 col. 4 lines 55-63).

Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to include the mobile communication system as taught by Umeda in Kumaki and Ahmed's system with the motivation for eliminating interruption of a speech flow or data dropping at a time of switching the base station in handover.

4. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kumaki and Ahmed.

Regarding to claim 21, Kumaki and Ahmed disclose all the limitation with respect to claim 20 including the use of hop-by-hop scheme for the wireless network. However, Kumaki and Ahmed fail to teach for the use of a single hop wireless network. To use a single hop scheme in Kumaki and Ahmed's system would have been obvious to a

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person of ordinary skill in the art as a matter of design choice for transfer processing of packet.

Allowable Subject Matter

5. Claims 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or make obvious the step of or means for **“sending a path setup message acknowledgment to said destination node address if said next router is a subnet root router”**, when the sending is considered within the specific structure of the steps recited in the method of claim 10.

Response to Arguments

6. Applicant's arguments filed October 18, 2004 have been fully considered but they are not persuasive. Regarding to Applicant's argument with respect to claims 1, 7, 13, and 20 on pages 8-9, Ahmed reference fails to teach **“for handoffs processed at a network layer”**. As admitted on page 9 lines 2-3 of Applicant's argument, Ahmed teaches of handoffs processed at the Subnetwork layer. However, Applicant disagree on the Subnetwork layer is a network layer. In response, see fig. 3A-B col. 11 lines 9-12, herein Ahmed discloses the Subnetwork layer includes functions to support the network layer. Furthermore, Ahmed discloses the network layer is optional when the Subnetwork layer is implemented. Thus, the Subnetwork layer indeed is the network

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layer capable of processed handoffs. Based on the reasons set forth the rejections are maintained.

Conclusion


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Duong whose telephone number is 571-272-3122. The examiner can normally be reached on M-F (9:00 AM-5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DD

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RICKY NGO
PRIMARY EXAMINER

4/4/05